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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent Application

Applicant(s): Lee et al.
Case: 19-6-4
Serial No.: 09/785,604
Filing Date: February 16, 2001
Group: 2116
Examiner: Thuan N. Du

I hereby certify that this paper is being deposited on this date with the U.S. Postal Service as first class mail addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

Signature: _____ Date: March 20, 2006

Title: Method and Apparatus for Distributing a Self-Synchronized Clock to Nodes on a Chip

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TRANSMITTAL OF REPLY BRIEF

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Submitted herewith are the following documents relating to the above-identified patent application:

(1) Reply Brief (original and 1 copy).

In the event of non-payment or improper payment of a required fee, the Commissioner is authorized to charge or to credit **Deposit Account No. 50-0762** as required to correct the error. A duplicate copy of this letter and Reply Brief are enclosed.

Respectfully,

Kevin M. Mason

Date: March 20, 2006

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REPLY BRIEF

Mail Stop Appeal Brief – Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Appellants hereby reply to the Examiner's Answer, mailed January 23, 2006 (referred to hereinafter as "the Examiner's Answer"), in an Appeal of the final rejection of claims 1-7, 9-13, and 15-17 in the above-identified patent application.

REAL PARTY IN INTEREST

A statement identifying the real party in interest is contained in Appellants' Appeal Brief.

RELATED APPEALS AND INTERFERENCES

A statement identifying related appeals is contained in Appellants' Appeal Brief.

STATUS OF CLAIMS

A statement identifying the status of the claims is contained in Appellants' Appeal Brief.

STATUS OF AMENDMENTS

A statement identifying the status of the amendments is contained in Appellants' Appeal Brief.

SUMMARY OF CLAIMED SUBJECT MATTER

A Summary of the Invention is contained in Appellants' Appeal Brief.

STATEMENT OF GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

A statement identifying the issues presented for review is contained in Appellants' Appeal Brief.

CLAIMS APPEALED

A copy of the appealed claims is contained in an Appendix of Appellants' Appeal Brief.

ARGUMENT

Independent Claims 1, 6 and 12

Independent claims 1, 6, and 12 were rejected under 35 U.S.C. §103(a) as being unpatentable over Kaplinsky. Regarding claim 1, the Examiner acknowledges that Kaplinsky does not explicitly teach that the clock delay is estimated, but asserts that Kaplinsky teaches measuring a clock delay for each of said nodes (col. 2, lines 66-67; col. 5, lines 27-28) and that it

would have been obvious to a person of ordinary skill in the art to modify the teachings of Kaplinsky to estimate the clock delay instead of measuring the clock delay. In the Response to Arguments section of the Examiner's Answer, the Examiner asserts that Applicant's argument that an incorrect statement exists in the Kaplinsky patent is, in essence, an allegation that the Kaplinsky patent is invalid and that such allegations are not well taken. The Examiner further asserts that "it is clear to the Examiner that when the delay on the signal paths 15 and 29 is large, the phase comparator 63 receives the return signal (input signal 59) after receiving the reference signal (input signal 61)." The Examiner further asserts that "every measurement is only an estimation based on the accuracy of the measuring instrument" and that "the clock delay for each node is measured by providing corresponding return path 29 then comparing the return signal on the signal paths 15 and 29 with the reference signal to determine whether the delay is large or small." Finally, the Examiner maintains that Kaplinsky discloses "adjusting the clock signal based on the estimated clock delay in column 2 at lines 64-66."

First, contrary to the Examiner's assertion, Appellants are not presently alleging that the Kaplinsky patent is invalid; Appellants are only arguing how a person of ordinary skill in the art would read the Kaplinsky patent in light of well known design principles.

Regarding the Examiner's assertion that "it is clear to the Examiner that when the delay on the signal paths 15 and 29 is large, the phase comparator 63 receives the return signal (input signal 59) after receiving the reference signal (input signal 61)," Appellants again note that the relation of the return signal to the reference signal is determined by the overall delay of the propagation path and the amount of delay introduced by voltage controlled delays 47, 49. Thus, if a large delay exists on signal paths 15 and 29, the input signal 59 may be delayed by more than one clock period and, using terminology of the art, input signal 59 may actually precede (and not lag) the reference signal.

In addition, the amount of delay introduced by voltage controlled delays 47, 49 is controlled by the output 51 of the charge pump 69. Since the phase comparator 63 only feeds "up" 67 and "down" 65 control signals to the charge pump 69, the precise value of the control

voltage 51 is unknown, and therefore the amount of delay induced by voltage controlled delays 47, 49 is unknown. Thus, Kaplinsky ***can, at best, only*** *measure the overall delay of the propagation paths*. Appellants emphasize, however, that knowledge of the amount of delay induced by the voltage controlled delays 47, 49 is not necessary for the proper operation of the Kaplinsky invention and thus, contrary to the Examiner's assertion, Appellant's argument is not "contrary to the plain meaning of the patent."

Regarding the Examiner's assertion that "every measurement is only an estimation based on the accuracy of the measuring instrument," Appellants note that an estimate is defined as "an *approximate* ***calculation*** of quantity or degree or worth." (See, dictionary.com and Wordnet (Princeton University)). Thus, contrary to the Examiner's assertion, a measurement is ***not*** an estimate.

Finally, regarding the Examiner's assertion that Kaplinsky discloses "adjusting the clock signal based on the estimated clock delay in column 2 at lines 64-66," Appellants note that, since Kaplinsky does not disclose or suggest estimating a clock delay, Kaplinsky does not disclose or suggest adjusting the clock signal based on the estimated clock delay.

Thus, Kaplinsky does not disclose or suggest "estimating a clock delay and adjusting said clock signal...based on said estimated clock delay," as required by independent claims 1 and 6, and does not disclose or suggest a "delay driver for adjusting said clock signal...based on an estimated clock delay," as required by claim 12.

Conclusion

The rejections of the cited claims under section 103 in view Kaplinsky are therefore believed to be improper and should be withdrawn. The remaining rejected dependent claims are believed allowable for at least the reasons identified above with respect to the independent claims.

The attention of the Examiner and the Appeal Board to this matter is appreciated.

Respectfully,

Kevin M. Mason

Date: March 20, 2006

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EVIDENCE APPENDIX

There is no evidence submitted pursuant to § 1.130, 1.131, or 1.132 or entered by the Examiner and relied upon by appellant.

RELATED PROCEEDINGS APPENDIX

There are no known decisions rendered by a court or the Board in any proceeding identified pursuant to paragraph (c)(1)(ii) of 37 CFR 41.37.